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**THE POLLUTION CONTROL LAW
AND
ITS APPLICATION IN
ADDIS ABABA**

By: Zerfeshiwal Nigussie

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By
Zerfeshwal Nigussie

Advisor
Mellese Damte (Assistance Professor)

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I hereby declare that this paper is my original work and I take full responsibility for any failure to observed the conventional rules of citation.

Name _

Signed

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Introduction

Living in a healthy environment is a natural and constitutional right of any citizen in any nation. But situations and human's actions by themselves become source for the factors disturbing the environment in which people live.

And so forth now a day's pollution has become the most serious global problem, especially in developing countries like Ethiopia. Mostly in the capital city Addis Ababa is subject to more pollution as the sizable part of the city's residents live in. Consequently, it is also the subject that should be taken seriously considering all its ill effects. Pollution, particularly in city communities, is the factor that is mostly identified as causing the greatest perceived deterioration in the quality of life.

Therefore, to control environmental pollution in Addis the concerned body has formulated different workable laws and proclamations. Of these, proclamation N° 300/2002 is the one which aims at dealing about the problems of pollution in a detailed and specific manner. Many provisions are devoted to control or regulate environmental pollution and its effects thereof. Different duties are imposed and powers are entrusted up on different concerned parties.

As it is clearly known environmental pollution in the city of Addis results from improper management of solid waste, industrial emissions and others.

In this study, special attention is given for the sources of environmental pollution in Addis Ababa and their possible solutions.

In general, the arrangement of the paper, the first chapter sets out to the general background, the concept, definition, source of environmental pollution and pollutions in kind will be discussed vastly and also pollution effects and controlling mechanisms are the points to be assessed by this chapter.

In the second chapter, the writer tries to analyze laws and legal formulations, as far as pollution control and solid waste management laws are concerned, and here also the pollution proclamation and its enforcement in Addis Ababa will be given coverage.

And also in chapter three of this study available legal remedies to the victims of pollution, the humans right to a healthy environment, responsibilities of state and individuals in protecting the environment from pollution and lastly power and responsibilities of the authority and duty and responsibilities of the polluter are the points and cases to be dealt with.

Finally, the paper provides conclusions on the main issues raised in the whole paper and ends with fruitful recommendations thought to be solutions for the main problem of pollution.

Chapter one

1. The General Background of Environment

1.1. Concepts and Definition of Environment and Pollution.

Understanding the concept and defining the environment is important for understanding the effects of pollution. It is also important as the way become aware of value the environment substantially affects our socio, economic, cultural and political developments. Nearly everyone cares about the environment. But what exactly is the “environment?” According to the Black’s law dictionary, environments

...the totality of physical economic, cultural aesthetic and social circumstances and sectors which affects the quality of the people life¹.

This definition is very broad because it sees environment from different perspectives. Physical, economic, social and cultural circumstances which have direct connection with the life of the human race. Changes in each of them can affect the life of the human being. On the other hand the encyclopedia of environmental science defines “environment” as

The aggregate of all external condition and influences effecting the life and development of an organism this general definition of the physical environment as applicable to all organisms².

Also the term environment has given another definition which can be taken as a summarized one which has been put shortly and precisely. Accordingly environment can be defined as totality of all resources³.

Now days the House of People’s Representatives proclaimed several proclamations that defined the environment. All of them defined the

¹ M . A Blacks law dictionary. 1979.P.749

² R.B platt .in D.N lapedes (ed). Encyclopedia of Environmental science(New york: MC Graw Hill. Inc; 1970)

³ Ibid

word environment as:-

“Environment” means the Totality of all materials weather in their natural state or modified or changed by humans, there external spaces and the interactions which affect their quality or quantity or quantity and the welfare of human or other living beings, including but or restricted to land atmosphere. Weather and climate, water, living things, sound, odor, taste, social factors and aesthesis.^{4 5}

This definition, for the understanding broken down in to three components Environment means the

*“...totality of all material in their natural state or modified or changed by humans”.*⁵ All naturally existing things such as forests, land, water, air, and wildlife are part of the environment. It also includes those things made or modified by man. For instance, buildings, dams, fences, are parts of the environment.

Their external spaces and the interactions which affect their external spaces quality or quantity and the welfare of human or other living things. ”^{6 7}

All naturally existing things or those things made or modified by man undergo complex interactions and such interactions affect the quality or quantity of these things and the well being of man and other species. That is to say, all component of the environment that make up the environment are interdependent and changed in one of the factors affect the precious balance of nature.

*“...including but not restricted to land atmosphere weather and climate, water, living things, sound, odor-, taste, social factors and aesthetics”*⁷. It simply reiterates what are said in previous definitions. However, it adds other points as social factors such as culture of man,

. Environmental pollution control, 2002, Art2(6) pro No 300. Fed.Neg. Gaz Year 9 No12, Environmental protection organ 2002 Art 2(3) proc, No 295. Fed Ned. Gaz year 9 no 7, and Environmental Impact assessment 2002 Art 2(2) Proc NO 299, year 9 No 11.

⁵ . Id first Paragraph

⁶ . Id third Paragraph

⁷ . Id five Paragraph

and aesthetics. Aesthetics may include natural amenities such as beauty of landscape.

Generally the FDRE constitution says that environmental rights as one of the elements of fundamental human rights,⁸ on the other hand, the constitution imposes duties on all citizens and government to protect the environment.⁹

Now I try to explain the Historical background of environment in Ethiopia, Ethiopia is the oldest independent nation in Africa. From the sixteenth century on wards, Ethiopian rulers had a legal document similar to the modern day constitution called “Fetha_ Negest” meaning The Law of Kings. The Fetha Negest was basically the guiding document the emperor used to rule over their subjects.¹⁰

The 19th century, Emperor Minilik the II led the country into a modern state The era of modernization started by the introduction of a government administration backed by a cabinet of ministers- the first executive organ of the Ethiopian state¹¹ According to Articles 8 and 14 of the 1893 Regulation for the establishment of the Ministry of Agriculture, the Ministry of Agriculture was responsible to asses the number of forests, grass, cultivated/uncultivated or spoiled lands of each Nobel’s territorial jurisdiction. The ministry of agriculture was responsible to keep up the countries forest the failure of which caused drought. In doing so the ministry shall order the public not to cut many trees without payments of taxes, not to cut small growing trees and reward persons who grow many trees. The Ministry furthermore determined the number of big trees to be cut and also consulted governors for such care as the trees are present in there territories.

. The federal Democratic Republic of Ethiopia Constitution 1995 Art 44 Proc No1 Fed.Neg.Gaz. year!
No1.

⁹. Id Art 91(4)

¹⁰. History of solid waste management in Addis Ababa (1994),P.28

¹¹. I bid

These Articles indicate the level of environmental awareness of the time and mechanisms of implementation, which called on the Nobility and Governors personal attention to look into the protection of forest resources in their administrative jurisdiction. Subsequent rulers of Ethiopia also made some efforts to contain the environmental concerns of the nation during their reign of power. However, Emperor Minilik the II was the first ruler of Ethiopia who established the first protected forest known as Menagesha Forest 30 km. west of Addis Ababa.¹²

The June, 1992 Rio Earth summit is a important event in the Ethiopian environment debate, the Ethiopian government came back from Rio De Janeiro convinced about the multi sectoral nature of the environment and commitment to establish a local environment agency and appropriate legal regime for the protection of the environment in the country. The national conservation strategy of Ethiopia document is another landmark exercise initiated by the government and accepted by the council of Ministers' in 1997 as a blue print for sustainable development in Ethiopia. The five volume National conservation strategy documents include baseline information on the potential natural resources. They identify the environmental challenges of the country policy gaps, intervention areas and also investment requirements to address the said environmental problems in the short and long term.¹³

Until the establishment of the environmental protection Authority in 1997, sectoral ministries handled environmental issues of the country as it related to their particular mandate. But still, the line ministries retain the same mandate and cause some difficulties in implementation, especially in coordination of federal environmental affairs.

¹² . I bid

¹³ . I d.p,29

1.1.2 Pollution

It is difficult to give a simple comprehensive definition of the term pollution, for what constitutes pollution at a given area may be different from others depending on the activities carried on and the type of pollutants emitted from such activities or the natural events that occur. It is more of a relative concept as such. The term pollution comes from the Latin word *pollutes*, which means made foul, unclean or dirty.¹⁴ However, many authors define the concept of pollution more or less in the same manner. At Helston Spilhous defines environmental pollution as:-

"....An excess of anything that by its excess reduces of human life any thing includes inanimate material (solid, liquid, gas) or animate material (insects, people, other or non-material excess (noise and light)).¹⁵

From the above definition we may understand that some thing in excess which is not assimilated and recycled in that system is pollution in other words the existences of waste materials which is beyond the capacity of the environment to absorb it. The UN convention on the law of the sea defines pollution of marine environment as:-

The introduction by man directly or indirectly of substances or energy in to the marine environment include estuaries which result or is likely to result in such dexterous effect as harm to human health Hindrance and other legitimate uses of the sea, impairment of quality for use of sea water reduction of amenities.¹⁶

On the other way the organization for economic cooperation and development (OECD) defines pollution as:-

. The environment resulting in deterious effects of such a nature so as to endanger human health Harm living resources and ecosystem and impair or interfere with amenities and other legitimate uses of the environment.¹⁷

¹⁴ . P. Cunningham and w. saigo. Environmental Science. A Global Concern (3 rd.ed 1995) P,372

¹⁵ . Athelston Spilhous Harmony of man's Industry and Living Space. The caremount colleges. Clare-mount calitornia (1973), p,3

¹⁶ . S.wolf and A .WHITE Lecture Notes Environmental Law (1995)

¹⁷ . United Nation, The Law of the see (1982) p, 2

From all the above definitions, we can understand that pollution involves the introduction in to some part of the environment of undesirable substances. Pollution contrasts conservation, which prevents the destruction or withdrawal of some part of feature of the environment or some of man's natural resources. Environmental pollution has to change the environment either directly or indirectly to affect the opportunity of man to enjoy the environment.

For the sake of this paper the working definition of the term "pollution" is that we get under the proclamation this paper is based i.e. proclamation No.300/2002, art2 (12) which defines it as:-

"Any condition which is hazardous or potentially hazardous to human health Safety, or welfare or to living things created by altering any physical, radioactive, thermal, chemical, biological or other property of any part of the environment in contravention of any condition „limitation or restriction made under this proclamation or under any other relevant law. ”¹⁸

From this definition one can understand that pollution is the addition in to air, water, and land of any material that changes the already existing state of the above components of the environments in excess of the normal amount found there which goes beyond the limit made under any relevant environmental legislations of the country.

1.2 Sources of Environmental Pollution

A number of pollutants pollute the environment from different sources that are broadly divided into two, i.e., point and non-point sources. Point sources are those sources of pollutants that can be identified on the ground such as an industrial effluent or a power station chimney discharging smoke in the atmosphere.¹⁹ Non-point sources include pollutants that enter the environment form diffuse rather than a

¹⁸ . OECD and Environment Paris (1979) P.108

¹⁹ . Ian Foster, Environmental pollution (1991), P,9

point source, for example, the application of agrochemical. Such as herbicides, and fertilizers.²⁰

Today environmental pollution is of great concern to many kinds. The air is polluted by soot from fossil fuel combustion and emissions of factories. These in return have caused greenhouse gas effect, i.e. global warming and Ozone layer depletion. The other polluted natural resources are land. The natural fertility of land is being destroyed due to different reasons. Dumping sites for municipal solid waste may cause land unfit for agricultural purpose. In addition other pollution in the world is noise pollution, Noise is an unwanted and technology in our time has also brought side effect with it.

All those that we have seen above constitute pollution that caused by man. But some natural disasters also cause environmental pollution. Example when a volcano erupts, certain gases are released in to the atmosphere that causes air pollution.

1.2.1 Solid and Liquid Waste Pollution

Wastes could be solid liquid or gaseous wastes could be organic or non-organic and hazardous or non-hazardous wastes are unwanted materials regarded as useless²¹

“Waste is every one’s business”. It is a must and part of our life. We all produce wastes in nearly everything we do. They are getting dangerous when unmanaged and beyond carrying capacity of our environment. Individual community. Institutions and factories produce solid, liquid and gaseous wastes of different size and level of hazard²²

²⁰. I bid

²¹. Tekahun Basha. Environmental health of Addis Ababa (April. 2004), P. 10

²². I bid

1.2.2 Sources of Solid Waste

Environmental pollution due to solid waste has continued to plague the city at an increasing speed due to dumping of solid waste from household Commercial and industrial sources.²³

Human excreta are the major area of concern ever from the household wastes. In 1984 about 30% of the population of the city has access to latrines this proportion estimated to have only slightly fallen to 29.2 per cent in 1997 in relative terms. This means almost one third of the population of the city has no latrines and experiences open defecation. Hence human excreta take proportionate share of the solid waste in the city. Moreover it pollutes most of the older and over crowded inner city with no short term solution²⁴

Ash, chat, and smoke are other major components of waste originating from households which with increasing the increasing number of people using chat its disposal in the ditches open space and drainage systems litter the urban area and block the drainage systems to the detriment of the environment and the health of population²⁵

The city council recognizes six major sources of solid waste households street commercial in statistics shows that households and hospitals Available data for 1999 shows that households take the lion's share of solid waste generated in the city from the total generated households 70% street 10% commercial institutions 9% industries 6% hotels % and hospitals 1%²⁶

The daily waste generation is 0.252 kg/capita the current daily waste production of the city is 2,297 m or 765 tones of the daily solid generated in Addis Ababa 65% is simply dumped on open sites drainage channels rivers and valleys as well as on the streets. In general the core

²³ . Id. P. 14

²⁴ .I bid

²⁵ . Tadesse Kuma. Dry waste management in Addis Ababa town -16th- 2004 (unpublished),p.5

²⁶ . I bid

reason for the solid waste pollution is:-

- The population of the city's doubling in about 20 years and so will be the volume of the waste generated the funds allocated to meet the requirements of handling the increasing volumes of the solid wastes
- Grand majority of the population of Addis Ababa fall under the classifications of poor or low income hence the possibilities for financial contributions for sustained solid waste management system.
- Further Complications to solid waste management system are brought by the geographical and unbar structure varying topography and lack of proper road Network in parts of the city make some neighborhoods in inaccessible for collection trucks this has contributed to inefficiency of solid waste collection.²⁷

The core problem is the pollution of the environment especially streets rivers. Ditches and sewerage systems. The pollution increases the health risks of the population and reduces the value of the environment

1.2.3_Sources of Liquid Waste Pollution

Today water pollution problem is heard all over the globe because of the ever increasing population industrialization, urbanization and other human activities.

Water is one of the most important natural resources and essential for the survival and health of most living organisms, including human beings. Its extended use for drinking agriculture, transportation, industry electrical power generation and recreation shows that to what extent water is an integral part of human's life.²⁸ The normal functioning

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. Assessment of little Akaki River Water pollution Addis Ababa city Government and Environmental protection Bureau (1989)

of human body depends entirely on the availability of adequate quality and quantity of water.²⁹

Absolutely pure water does not exist in nature. Its quality can be affected by some dissolved or suspended substances and consequently. It becomes polluted water pollution is a state of deviation of water purity from the normal condition to the abnormal and the affection of its function and properties.³⁰ It is the addition of something to water which changes its natural qualities. So that the riparian owner does not get the beneficial uses from it.

Pollution alters the quality of a water body. It disturbs the natural entity of the physical and biological components of a water body. It also negatively affects the socio-economic values of a water body.³¹

One type of definition puts water pollution as follows “water pollution is a natural or induced change in the quality of water which renders it unusable or dangerous as regards food, human and animal health industry agriculture, fishing or leisure pursuits.³²

Just like any other environmental pollution the case of water pollution can be natural or a result of human activity. This case change the quality of the water so that it can no longer be used for its intended purposes.

The anthropogenic sources of water pollution broadly divide into three. They are domestic, agriculture and industrial.³³ In developing countries the main source of domestics due to poverty while in the developed world it is agricultural and industrial.³⁴

Municipal water pollution are generated from storm water run-off, industries, home and commercial establishment-wastes from homes

²⁹. I bid

³⁰. I bid

³¹. I bid

³² . H.R.N. Hynes. The Biology of polluted water (1974),p,64

³³ . Mohammed Umer, Tamiru Alemayehu, Warash Getanh, Mulugeta Alene, Asfawossen Asrat and seifu Kebede. Environmental science, (2003), p,43

³⁴. I bid

consist primarily of organic matter from garbage, food preparation cleaning of cloths and dishes and human wastes³⁵ The number of E.Coli and streptococcus faceless bacterial present in the water is used to indicate the amount of pollution from human waste (Enger, etal 1991) unlike industrial wastes, the characteristics of domestics sewage are relatively constant. Mckinney (1962) notes that the domestic sewage from one residential area is approximately of the same composition as from any other residential area because of the habits of the people within the region or community. In some industrialized countries, virtually all of the waste water originating in urban communities is subjected to some degree of treatment (Okun and Pong his 1975). In the developing countries how ever the considerable investment that will have to be made to provide the service to urban communities is still in all early stage (Lohni, 1980). It appears that the level of treatment of Hence the relapse of untreated sewage into water ways is still a major problem.

Industrial wastes differ from domestic wastes in that the former is the principal source of controllable water borne wastes. This characteristic makes it simpler to monitor and control the amount of waste discharged to the external environment. Industrial plants are easily detectable because, the pollution is from a single effluent pipe or series of pipes and this type of pollution is said to come from a point source³⁶

Ethiopia too is facing the problem of water quality deterioration. The extent and severity of water pollution problem is more amplified in major cities of the country. Addis Ababa is one of the cities where the problem of water pollution is at its highest state at present as the most densely populated and industrialized area of the country. The city of

³⁵. assessment of little akaki supra Note, p,28

³⁶. I bid

Addis Ababa and its surrounding is the most affected area by the problem of water pollution.³⁷

1.2.4 Sources of Air Pollution

Air pollution has become an urgent problem of the modern time due to a rapid increasing urban population and increasing industrialization. Yet it is not recently discovered phenomenon. It occurs when the capacity of the air to dilute pollutant overburdened.³⁸

The source of air pollution is the activity from which pollutants are originated. There are many sources of air pollution that are hazardous. It can be categorized into natural and human-made volcanoes, forest fires, green plants, small organisms like termites, bacterial metabolism, to mention only a few contribute different types of air pollutants.³⁹

There are as many potential sources of air pollution as there are manufacturing operations, motor vehicles, home heaters, power plants, and incinerators, to mention a few of major sources.⁴⁰ Every year the number of possible sources increases with the accelerating trends of population growth, urbanization, small and medium scale industrialization, growth of agriculture and greater mobility and affluence.⁴¹

On the other way the American jurisprudence says the same thing about the sources of air pollution "It may be created by nature (dust storm) volcanoes) it may be emanated from man's burning of fuel; it may be caused by industry (Iron and steel plant, petroleum refineries) transportation, particularly, automobile is the greatest source of air

³⁷. Ibid

³⁸. Environmental Quality first Annual Report of the council on environmental Quality, (1970), p.62

³⁹. C. Stern. C. Wohlers. W. Boubel and p. Lowery. Fundamentals of Air Pollution (1973), p. 50

⁴⁰. Ibid

⁴¹. Ibid, p. 38

pollution due to the fact that it is the major source of carbon monoxide, hydrocarbons and nitrogen oxides⁴²

Generally air is said to be polluted when the accumulation of waste gases and particles from combustion production and other economic activities exceeds the natural dispersion capacity of the atmosphere when air movements are unable to disperse wastes at the rate they enter the air quality deteriorates and the supply of clean air diminishes.

1.2.5 Sources of Noise Pollution

Noise is to be regarded as a serious pollutant defining noise pollution is quite another matter noting the fact that our perception of it may often be influenced by subjective factors. Such as familiarity and personal attitudes.⁴³

It is often said that one person's music is another person's noise very loud music⁴⁴ Heard by an appreciative listener may be considered beautiful where as even minute scratching and extremely weak sound can be a disturbing noise.⁴⁵ Noise has the capacity to cause conflict between those who are making it and those who hear and do not want hear it.⁴⁶

The most offensive noise in urban environment is often the conglomeration of sound caused by almost infinite number of unidentifiable and diversified source.⁴⁷ Those sources of noise pollution can be grouped into stationary and mobile sources.⁴⁸ Nonetheless the distinction that is usually drawn for regulatory and analytical

⁴² American Jurisprudence, vol 61 (New York 1972), p.822

⁴³ Hildeb and J. "Noise" Columbia Law Review. Columbia Review Association Inc, (1970)

⁴⁴ A. Bronzaff. A call to the legal profession to defend citizens against Noise pollution (2002). P,1

⁴⁵ Hildeb, supra Note, 43, p. 658

⁴⁶ S. Wolf supra Note 16 p,387

⁴⁷ Muluken Eyasu. Assessment of Night Clubs Noise level and affects on Employes, clients and Neighbourhood Resident in Addis Ababa 2002 unpublished. Jimma university, p,5

⁴⁸ W. Rodgers. Environmental Law (1977). P.551

purposes is that between transportation and non-transportation source.⁴⁹ Transportation sources prominently include aircraft and highway vehicles while non-transportation sources embrace a wide range of industrial plants, construction equipments, household appliances and the like.⁵⁰

Noises from electronic equipments are other sources of pollution, Tap recorder playing of musical instrument gramophone microphone etc. when uses at higher value make very objectionable loud noises.⁵¹ This instrument mostly made to work in this manner by music shops, churches, mosques, night clubs, other sources of noise include. Noisy animal such as dogs, garages, mills and other noisy machineries⁵²

1.3 Effects of Pollution the Need to Control Pollution

All those that we have seen above directly affect the human health and well being. Now the writer try to discuss the effects of pollution on the Human Health.

1.3.1 Effects on human health

Many environmental health problems produce major uncertainty about what environmental health problems produce major uncertainty about what environmental changes do directly affect the human health and well being. Despite this uncertainty it has been proved by laboratory test and the defector episodes that air pollution can affect our health in many ways both in short term and long term effects.⁵³ Irritation to the eyes nose and throat and upper respiratory infections such as bronchitis and pneumonia are examples of short term effects of air pollution. The

⁴⁹ . I bid

⁵⁰ . I bid

⁵¹ . J. Lesson Environmental Law (1995),p.320 .

⁵² . A study Conducted by the Addis Ababa city Administration Environmental Protection Bureau Air Radiation and Noise pollution Control Team 1994.

⁵³ . Effects of Air pollution on Health How can air pollution Hurts My health? See the web site www.jbj.gov.Education.ELSI/jtramesj/pollution-health-effects.....

long term effects of pollution include chronic respiratory diseases lung cancer, heart disease and even damaging the brain, nervous system, liver or kidneys.⁵⁴

Moreover it has been shown to cause injury to the health and injury to animals, vegetation and property and it also alters climate and may produce global change in temperature.⁵⁵

Water pollution is the immediate health problems are infections that result from drinking contaminated water taking in raw vegetables that have been irrigated with polluted river or skin contact with such water the persistent toxic and bio-accumulative industrial water pollutants on the other hand cause long term health hazard like premature aging cataracts and birth and reproductive defects. Cancer mutation and death.⁵⁶

In addition some of the industrial effluents are poisonous which kill some species of plants and animals in the water body.⁵⁷

Noise can be damaging to health in various ways, very much depending upon susceptibility of the recipient some of the health problems can be quite serious for example, it is not known for sudden or violent noise to cause cardiac arrest in people and animals.⁵⁸ Sudden noise can result in the tearing of the blood vessels resulting in the reduction of blood to the body.⁵⁹

The biological organism in a world is distributed on the adult level a causal relationship between exposure to excessive noise over a period of time and the incidence of heart diseases and cardiovascular dysfunction is reported.⁶⁰ In addition noise pollution attacks the nerves and ultimately

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. Id. P. 85

. H.R.N Hyens. The Biology of polluted water (1974), p.64

. I bid

. S. Wolf. Subra Not 16.p.388.

I bid

. Gregory F. Houle "Noise "pollution: Recent Federal and New York city noise Control legislation Ecology Law Quarterly (vol.4.No.1 1974), p.105.

the mind.⁶¹ even at levels below those the cause hearing loses noise affect the accuracy, frequency and quality of verbal communication making conversation difficult, one of the most disruptive effect of noise pollution both physical and mentally is loss of sleep.

Generally solid waste pollution is the major or effects of human health. It has resulted in to accumulation of waste on open lands, in drains and in the living area of many people, causing insanitation and foul-smelling pools. Environmental pollution through leaches from piles (water and soil pollution) and burning of waste (air pollution, clogging of drains and the possible spread of disease. Unattended piles of waste are an abiding place for insects and rats. This situation is believed it result in poor environmental condition and an ever present risk of epidemics. Which in turn present a formidable threat to health and productivity.⁶² It is increase the health risk of the population and reduces the value of the environment.

1.3.2 Effects on the Natural Systems

Natural systems may be severely damaged by improper human intervention of human beings. The existence of natural system depends on the maintenance of the balance among natural resource, water pollution changes this balance, destroyed the amenity or aesthetic value of water resource. No body like to see water that has dark color or objectionable odor.⁶³

In addition the water sources may also both in terms of quality and quantity seriously be altered thus the living of the entire living things, the ozone depletion and global warming are the outcome of air pollution.⁶⁴

⁶¹ . I bid.

⁶² . I bid

⁶³ . H.R.N Supra Not 56.p, 67

⁶⁴ Air Pollution see the web site file|1|A: Air%20 pollution 12.html.

1.3.3 Economic cost of pollution

The economic cost of a country will be forced to spend a lot of money to clean up their polluted environments. This has a great implication on their economics especially in poor countries like Ethiopia. The economic costs of pollution are indeed massive. Billions of dollars are being spent to minimize or repair the destructions of pollution. Air pollution reduces the commercial value of the crops by making their appearance less attractive or reducing the yield and hence affects the income level and the living standard of the farmers.

Chapter Two

2. Pollution Control and Solid Waste Management

Laws

In the previous chapter, the writer tried to show briefly the environmental pollution and the extent of pollution on the environment. This problem is causing significant damage to the environmental, particularly to health and to the overall economy of the country.

In this chapter, we will see what is being done to control it. We will see the laws that have so far been enacted the pollution control proclamation No 300/2002 will be dealt with in detail to see how it designed to combat the pollution problem and finally how to enforcement of the pollution on the environmental pollution.

2.1 Pollution Control Proclamation

One of the objectives of this proclamation is to protect the environment from the pollution; this is the main environmental proclamation that has so far been enacted on the control of pollution since “it is the first of its kind in the country”. It is designed to address the pollution problem in general.

The proclamation has expressly dealt with environmental pollution as a problem of the country as far as the very purpose of the pollution control proclamation is concerned and as also its title tells us, pollution control includes the control or regulation of environmental pollution.

Though it has been said in the Foorementioned discussion and as can be inferred from the title that proclamation N° 300/2002 is about pollution control only. There are many provisions of the proclamation that reveals the effect that it also deals with prevention of pollution.

The intention of the legislation about the whole of the proclamation therefore, seems not only controlling but also prevention, this can be supported by the following Articles of the proclamation.

As to prevention commencement can be made from the preamble statement which says ...It is appropriate to eliminate or, When not possible to mitigate pollution as an undesirable consequence or social and..."this refers that preference is to be made first to preventions and in case that fails. We proceed to controlling⁶⁵ then we proceed to the binding part of the proclamation Art 3(3) of the same prohibits every one from polluting the environment as a duty before the environment gets polluted also Art 3(3) imposes a duty upon every body engaged in any field of activity that cause pollution to install a sound technology that avoids the generation of waste so as to prevent our environment from pollution.

Further the proclamations empower and oblige the environmental protection authority or relevant regional environmental agencies to take necessary corrective measures to prevent our environment from any possible harm.⁶⁶

In addition, Article 10 incorporates the subsidy principle which advocates for incentivizing those with technologies or other methods that enable prevention or minimization of pollution.⁶⁷ This includes exemption of tax for equipments imported to same effect.

Many of the provisions of the proclamation are made to that effect. This means that the very purpose or motive of the proclamation is to control or regulate the pollution problem. Such regulation of environmental pollution is addressed in the proclamation in many ways and aspects which the following subsections are to address in a summarized manner.

⁶⁵. Pollution Control proclamation No.300/ 2002. Fed. Neg. Gaz., Year 9, No. 12.preamble

⁶⁶. Id., Art 3(5)

⁶⁷. Id., Art 10

The writer try to discuss before going to assess how the pollution control proclamation regulate the environmental pollution problem as it includes the formers. It is better to go through the preamble part of the proclamation as a tracking idea.

The preambles statement of the proclamation commences its discussion by making remembrance to the effect implying that environmental pollution may be resulted from same social and economic development activities.⁶⁸

The second paragraph of the preamble statement imposes duty and responsibility of the protection of the environment on all citizens of the country and as per paragraph three of the preamble. ⁶⁹ It is appropriate to eliminate or when not possible to mitigate pollution as an undesirable consequence of social and economical development activities. Accordingly this legislation is provided by the legislation to control pollution effects on the environment.

2.2 Waste Management Laws

So as to keep a given city clean and convenient for survival, the existence of active solid waste management system is one of the most important things. To bring this into reality, the Addis Ababa City Administration tries to make different offers. In order to properly collect remove and it possible to recycle, the city's solid wastes, the administration has formulated a clear legal approach as mentioned in pollution control proclamation N° 300/2002.

In addition a solid waste management proclamation N° 313/2007 has been brought into existence. According to this proclamation “solid waste management means the collection, transportation, storage,

⁶⁸. Id., Preamble, Paragraph. 1

⁶⁹. Id., preamble, second Paragraph

recycling or disposal of solid wastes or the subsequent use of a disposal site that is no longer operational”.⁷⁰

Moreover, to manage the Addis Ababa’s solid or liquid waste in a way that doesn’t harm the environment and the health of the residence, a regulation N° 13/2004 called waste Management Collection and Disposal Regulations of Addis Ababa City Government is proclaimed.

In general, the above mentioned proclamations and regulations aimed at bringing a healthy and convenient environment in the capital. But, despite this these proclamations and regulations. Couldn’t save the city from becoming full of dirt and having polluted environment. Therefore, the writer in the subtitles below tries to assess waste management system, the cause of solid waste problem and the solutions as well.

2.2.1 Waste Management System in Addis Ababa

The term “waste” literally implies something unwanted or rejected. It is any substance article or goods that their owner can not use and want to get rid of or any such thing that a person in authority has declared as waste, it is an inevitable by-product of human activity and endeavor.⁷¹

Waste being that, it is unquestionable that there is a high need of waste management in the City, where the otherwise result of it has harsh effects. Accordingly, in waste management the public need to participate in separation of waste; timely disposition of waste at collection sites (in skips and at other sites); make modest additional contributions to waste management; run regular campaigns to get rid of waste and; take initiatives in waste recycling.⁷²

⁷⁰. Solid waste management proclamation, No. 513/2007 Fed. Neg. Gaz year 13, No. 13. Art. 2(7)

⁷¹. Zeru Girma. Proceedings of the workshop on environmental awareness raising: solid waste management and recycling Addis Ababa city government EPB in collaboration with Heinrich Boll foundation, Nov. 1999 AA P, 19

⁷². Hussien Kedir N’E-f KU’? In ABBI WEEKLY. June 1st-6th, 2006. vol. 2 Issue No. 2, p.8

To that effect different mechanisms are being employed in the city. For example, waste is collected in three ways', door-to-door, block and communal collections using three types of collection vehicles side load trucks, closed compacting type trucks and container Neff trucks⁷³ and also as effort to improve solid waste management, the city administration has transferred the service provision of solid waste management to the newly established Addis Ababa a city sanitation beatification and park development agency, with objective to make the city naturally balanced, green and favorable environment through integrated management and urban recreational area development.⁷⁴

In general, the concept of sustainable waste management underlines on the following two important concepts; waste has a value and the production of waster is in itself an inefficient management of the earth's raw materials.⁷⁵ Hence, a new approach is called for to promote a sense of common responsibility towards waster management. And the strategy adopted to implement the above approach involves a hierarchy of prioritized actins given in the following steps:- “minimize the production of waste, maximize waste recycling and reuse, promote sate waste disposal, and expand waste collection and disposal services.⁷⁶

2.2.2 Addis Ababa's Waste Management Problem

Financial limits institutional limits, unreliable markets and do nor are influences one of the main problem of waste management in Addis.⁷⁷

In more specific manner “the city has a dumpsite where trucks dump waste collected from all sectors of the city”. However, these waste collection facilities are very limited in number and most are not functional due to lack of proper maintenance, as a sequel, solid waste

⁷³. Id., P.21

⁷⁴. Tadesse Kuma, Dry Waste Management in Addis Ababa June 5th -16th, 2004, (Unpublished)

⁷⁵. AWAPENESS, the newsletter of action professional's association for the people (APAP). Volume 8, issue 1 2005 p. 23

⁷⁶. Ibid

⁷⁷. Id., p. 17

accumulates on street corners and public places and becomes a source of public health concern street drainage systems are also clogged with waste, and these results in flooding of streets in the rainy seasons. Why are you consistently write waster instead of waste? Check out!

In general, the serious short comings in all aspects of solid waste management in Addis Ababa are inefficiency of the system. Awareness problem, shortage of information and documentation problem of the recycling sector lack of proper city planning.⁷⁸ To deal with some of these.

In relation to the problem of inefficiency of the waste management system: “lot of waste is being accumulated in Addis Ababa and the disposal scheme is not efficient; there is only one dumping site that is too inadequate to handle all the waste generated in the city and also the absence of an autonomous institution solely responsible for the management of waste.” You use the inverted commas without citing the source. That is wrong!

As to awareness problems, there is a need for awareness creation amongst the public on waste management the Keble officials have not fully appreciated the rules and regulation put in place for waste management.

Concerning the problems of the recycling sector:- there is no incentive for waste recyclers nor is there an enabling environmental for recyclers.⁷⁹

Also the problem of waste management as a result of the following, t here is no effective sewage system, very few toilet facilities poor road infrastructure, wanting master plant of the city and low management capacity of the city administration are infrastructural problems in the city.⁸⁰

⁷⁸ Ibid

⁷⁹ . Supra note 8, p. 10

⁸⁰ Supra note 11, p. 6

On the other hand legal problems are one factors, many legislative frame works have been issued to prevent, it not to control the pollution problem in general. However, these do not avoid the problem.

In general the reason for this failure to a void the problem is not because of lack of competence of the constitutional provisions or the polices and strategies of the city administration rather because these polices and not be implemented practically the consequence of which is the same. The reasons are that these laws and other details of them it any impose duties which are not ready to be implemented: then focused on order controlling and penalty only; they do not give proper attention to natural resource conservation; and even the penalties laid down there can not deter further faults.

2.2.3 Points to Solve the Addis Ababa Waste Management

Problem

Solutions have to be rendered by the concerned organs and institutions so as to exploit the unpolluted environment of Addis. To this effect the following can be posed as solution.

The difficulties of waste management in cities of developing countries are many, but they could be reduced by waste recycling there is a need to separate waste at sources to facilitate recycling. Generally speaking the means of waste collection in developing countries need to be cost-effective and labor intensive and should preferably involve collection and transport systems are outlined human powered, animal powered, and motorized.⁸¹ Involving other collaborative organs into waste management process it another solution to the waste management problem in Addis. Accordingly there are many stakeholders in waste management and these include, the informal private sector, community

⁸¹. Id., p. 16

based organizations Non-governmental Organization, the formal private sector and municipalities.

The most successful initiative occurs when the collaborative involvement of all or some of the above comes into being either through evolution or by deliberate design. The informal sector plays a significant role within the waste recycling economies of the developing countries. NGOs can play a vital role in linking the formal and informal sectors in waste related activities.

In addition some kebeles have taken a number of actions including, training health, and inspectors to control any mismanagement. There is penalty for those who disobey, planning to make concrete containers, maintenance of the roads in kebeles.⁸²

Finally the Addis Ababa city administration should adopt an integrated municipal waste management system through which they shall ensure the collection, transportation, recycling treatment or safe disposal of municipal waste. Also there is a need for systematic research on waste and waste management in Addis. Further, there is a need to put proper information management in place related to waste management in Addis additionally there is a need to make recycling more practicable and adaptable in the society.

2.3 Controlling Role of the City Administration

For the better management of wastes and for controlling the Negative impacts it creates on the land different controlling measures need to be taken to prevent and it not to reduce the production of waste. The main objectives of future activities, was to make sure that as much waste as possible was recycled to be safely get rid off.⁸³ Also emphasis has been made to that policies and regulations would not serve much

⁸² Id., p. 22

⁸³ Id., p. 15

purpose in waste management until communities are aware of the negative environmental consequences of their behavior.

In general though mention can be made to varieties of controlling mechanisms they better be classified and discussed in two categories administrative mechanisms and legal mechanisms which are to be dealt in the next sub sections.

2.3.1 Legal Mechanisms

Many open plots in the city are dumping grounds for sorts of waste. In some areas this is unavoidable. However, there are individuals who dump waste anywhere while they have the opportunity to avoid the situation. There is a lot of apparent delinquency in waste management. There are also rules and regulations in place to prevent such delinquent behavior and punish individuals when they are found on the wrong side of the law.

Accordingly, one should make sure that: the rules are realistic and timely the right environment for implementation of the law is in place; limitations in waste management vis-a-vis policies and regulations are appreciated.⁸⁴

Generally, laws for the management of waste are founded on a hierarchy of objectives focused on prevention reuse and recycling and on a sound treatment of disposal.⁸⁵

In respect to solid waste control, management or disposal to deter environmental pollution, different legal measures have been taken at different level in our country. At Federal level the right to healthy environment has been made part of the human right. Also the right to get adequate housing has been made part of the international convention on economic, social and cultural rights. The Environmental Protection organs have been established under proc. No 295/2002.

⁸⁴ Id., p. 10

⁸⁵ Id., p.20

At Addis Ababa City administration level different implementing organs have been established. The City Administration has prepared though at draft level environmental conservation strategy concerning solid waste utilization and disposal. Also there is hygiene and environmental health protection regulation.

2.3.2 Administrative Mechanisms

It is not enough to employ only legal mechanisms to control environmental pollution problem. i.e., the legal mechanisms are not sufficient and effective by themselves unless they are assisted by administrative mechanisms. Administrative mechanisms involve measures taken or have to be taken by concerned environmental author and other collaborative organs so to abate the environmental pollution problem in.

Before we commence the discussion about the current and practical measures or mechanisms the concerned environmental authorities have to take in Addis it is better to take a glimpse not on general pollution control.

Measures that need to be taken to control the situation include: creating enabling environment; establishing a well organized information management system; providing support to all involved in waste management; organizing groups, to manages waste; carrying appropriate studies in waste and waste management; providing training to appropriate individuals in waste management and also workshop; engaging the private sector in waste management based on payment.⁸⁶

The above concerns or in general waste management can not be left as a responsibility of the Addis Ababa municipality alone. There is an urgent need to provide forum for a discussion at different levels the issues of public participation in waste management.

⁸⁶ . Id., p. 9

Also, “private and government owned industries dump their waste directly into streams and other Medias of the environment. For this government agencies and NGOs, which are active in environmental field, shall take different measures and campaigns to abate the pollution problem. The few campaigns carried out on an annual basis (Hidar 12) and world environment days (June 5) can be mentioned. The ‘clean up’ Addis program initiated by LEM Ethiopia could also risen.

Another mechanism is waste recovery which provides opportunities for people to recycle waste for generating income and to maintain a clean environment. There is a need to re-establish waste recyclers groups / organizations which have to be granted incentives such as tax reduction credit facilities.

Further, as to how the city Administration Environmental Authority undertakes the waste management especially wastes collection, there are three mechanisms of solid waste collection. These are: house-to-house collection of waste by trucks. Putting skips around to serve of buildings and toilets and putting skips in a center so that the society will use of them.⁸⁷

In a closer and up date manner, it is wise to note what is now going on in the Federal Environment Authority (EPA). For it being a regulatory organ in the City Administration Environmental Bureau and in other concerned environmental organs as to controlling of the environmental pollution.

The EPA announced that it attaches due attention to capacity building schemes geared towards enabling production system in the next five years.⁸⁸

The authority said it would provide professional and technical support for industries, which have a potential to cause chemical

⁸⁷ ui^=e >uv Y}T %q^^ iA%2" lOnkU i"<A0'f& jMM 14 Se]£A'& %JS0a Hwf MTf" %)"vu= 0u^ u=a ufww' %k[u& >£=e >uv& ld 1995 YU Ni 10.

⁸⁸ The Ethiopian Herald. Vol Lxii. No 251 Friday 30 June 2006, p.1

pollution to the environment to institutionalize cleaner production system during the reported period above. Accordingly the authority envisages enabling textiles, leather, chemical, sugar, cement, and beverage manufacturing industries introduce cleaner production system.⁸⁹

Also Addis Ababa City Cleaning, Beautification and Park Agency announced that in the 1999 E.C budget year, the percentage of collecting and disposing wastes will be increased to 85%. Also government parks and tombs will be transferred to private holdings so that better service will be provided.⁹⁰

According to the acting manger of the agency Ato Mussa Hassen to solve the waste disposal problem. The agency will teach and enhance the society's' waste disposal awareness, pave the way to recycling of wastes and work in coalition with collaborative organs so as to raise the disposal percentage to 85%. Also the agency will buy 20-30 waste letting cars so as to resolve the shortage of such cars so that wastes be collected and disposed frequently.⁹¹

Also, the manger said that not to make wastes of the city as causes of transitory disease the weekly interval of picking skips are increased from once to twice. He added that the agency is on the way to buy 260 skips with opener at the top and to be put at every 300 meters distance so that the files can not reach of them since the are of closed and be transported and disposed without being spilled out and thus no transitory diseases will be spread out.⁹²

Further, 350 sanitary workers have been taught about transitory disease so that they protect themselves from such diseases and also they

. Interview with (Ato) Shimeles Fikadu EPA planning and program service acting head and park agency manger

⁹⁰. Interview with Ato Mussa Hassen Addis Ababa city cleaning beautification and park agency manager

⁹¹. Ibid

⁹². Ibid

teach their friends, families and neighbors of total 100 person each so that 350 thousand persons be made aware of it.⁹³

To add more, the City Administration makes a bilateral relation between Addis Ababa and other civilized Cities of Asia, Europe, America and other countries for ex. Ambassador of Iran Islamic Republic assured to the major of the City care taker the continuation of the sisterly relation, one on which is to recycling of waste and other related techniques.⁹⁴

To conclude this section it is better to make a general highlight over the controlling mechanism of environmental pollution by mentioning the points made by an interview with EPA authority. According the mechanisms EPA is taking includes educating the people about the harmful effects of waste and about how to control the problem there in making environmental auditing identifying problems of industries so as to advise them adequate solution. However, emphasis is made to deducting or make aware of the people or the industries.⁹⁵

2.4 The Pollution Proclamation and its Enforcement in Addis Ababa

2.4.1 Forbidden Emission beyond on the Determined Value

According to Article 3(1) and (2) of the environmental pollution control proc No 2002 / 300 and 4(4) of the draft regulations generally forbidden every industrial institution subject to the regulation from emitting environmental exceeding the limit value set under the common emission standards. The performance or emission standards set objectives or performance levels for the regulatory target without specifying how.

⁹³. Ibid

⁹⁴. Addis Lisan News Paper. Vol. 14, No./ 194, Saturday, August 20, 2006. p.1

⁹⁵. Interview with (Ato Mohammed Ali pollution control department head of EPA.

These may incorporate emission limits that emphasize on the rate. The amount and the types of pollutants that may be emitted from a given source over a specified period of time. But, our regulatory means does not include the kind to pollutant to be or not to be emitted by a source. The emission standard must be understood as the goal of emissions standards is to prevent important environmental resulting from different origins by indicating pollution limits beyond which the carrying ability of the environment would not tolerate.⁹⁶

2.4.2. License Requirements to Release Pollution

On this issue any industrial enterprise is needed to get allowance from the competent environmental Agency and to get registered by the license agency to that effect to release any type of pollution.⁹⁷ The competent Environmental Agency will provide such permission only to the industry that has the ability to treat and dispose of the said pollutants in environmental sound manner, provided that the said industry negotiate that commitment.⁹⁸

A planned industrial enterprise authorized to practice the environmental impact assessment report submitted pursuant to the relevant law is presumed “to have the capacity to treat and dispose of the pollutant in an environmentally sound manner”.⁹⁹ Thus, such industrial institution will be given a written consent without the need of any evidence of the required capacity to control the emission of pollutants.

2.4.3 Advantage of the Best Available Techniques

According to article 2(5) of the draft regulations the best available technique can be technology or practice. The competent environmental

⁹⁶. Supra note 1, Art. 6(5)

⁹⁷. The draft industrial pollution prevention and regulations (2005) , Art 4(30,7(1)

⁹⁸. Ibid., Art 7(2) (a)

⁹⁹. Developed countries such as the United States, Britain etc. use “technology forcing venture” to control environmental pollution from the deferent sources.

Agency Points out the available technique for pollution control objective normally when proposed by the operators of industrial institution¹⁰⁰ for instance, when the proponent is authorized to enact the environmental influence assessment study report.¹⁰¹ The competent Environmental Agency also can demand the industrial enterprise after project application when the industrial enterprise is likely to bring environmental pollution. The competent Environmental Agency can need the fixation of sound technology or good operation practice to remove the pollution. It not possible, to minimize emissions to the required minimum ¹⁰²such administrative decisions are needed to be taken so as to avoid or avert the imminent substantial damage to the environment and human health. For reforming the degraded environmental is in high cost and bringing back the life that has gone disappearing is impossible.¹⁰³ In this situation, decision can be made despite the blame to the emission standards or the use of the best existing techniques previously determined.

The administrative decisions can also be made to stop further emissions or damages, due to failure to agree with the legal provisions.¹⁰⁴

The best available technique is to be determined by considering the nature, the location the time the industrial enterprise has stayed in action, they type composition and quality of pollutants it generates the carrying capacity of the disposal medium and the need to vasten public interest.¹⁰⁵ The factors rely on the subjective judgment of the decision maker. Thus, the determiner should have concrete evidences so as to announce the goals of the constitution as well as that of the environmental policy.

¹⁰⁰. Supra note 33, Art, 2(5) and 6(1)

¹⁰¹. Id., Art. 7(3)(a). See also Environmental Impact Assessment 2002, proc. No. 229, Fed. Neg. Gaz Year 9. No. 11 Art. 8

¹⁰² Supra not 1, Art. 3(3) and supra note 33. Art, 6(1)

¹⁰³ Supra not 33, Art 9(2) and 15(2)

¹⁰⁴. Id., Art 15(1) and 19(4)

¹⁰⁵. Id., Art 6(2)

2.4.4 Environmental Audit

Environmental audit is one of self-policing means received by the Ethiopian Environmental law. Dr. Aruind Kumar defined environmental audit as:-

An important management tool comprising of a systematic, periodic, objective and documented evaluation and assessment as to how well the environmental management systems are organized to facilitate control of environmental practices and how well the company policies are complying with regulatory frame works.¹⁰⁶

The above definition displays identical message wise Prot G.N Pandey's definition which states that "Environmental audit is a review of activities affecting the environment to determine the rank of a corporation's compliance with control state and local environmental law and regulation".¹⁰⁷ Thus, environmental audit is the determination of compliance status by the industrial enterprise. Environmental audit is an important tool of environmental treatment because it enables the environmental pollution control sections to ensure the compliance with the environmental protection laws.¹⁰⁸ It also may initiate the industrial enterprises to illustrate there concern and greater overall awareness towards their social obligation for environmental protection and to adapt econ-friendly technologies.¹⁰⁹

The draft regulation obliged each industrial institution to undertake its own environmental audit by its own budget to ensure that its activities agree with the environmental pollution control proclamation No 300/2002 and the regulations.¹¹⁰ Thus it is self -auditing requirement.¹¹¹

. A. Kumar, Environmental Science: It Textbook (2004), p.preface

.N. Pandey, Environmental Management (1997), p. 134

. Ibid, See also Leo Motiuk, Environmental audits: Evaluating and Responding to Environmental Concerns (1991), pp. 35-59

¹⁰⁹ Ibid

¹¹⁰ Supra Note 33

See Environmental Impact Assessment 2002 Art 8(2)

In general self-policing self-monitoring, self auditing and self-reporting is. Useful for both the government with limit enforcement resources and industrial institutions to find data for preparing itself for the coming crisis that clearly will happen. However, self-policing should not be something that is carrot and stick. Self-policing levels the valuable information in relation to the pollutants and may show the differences from the standards that results penalties.¹¹²

Monitoring auditing and reporting information are important instruments to ensure the adoption of environmentally acceptable practices in al public and private development activities including industrial operations. Hence, to have better information from the industrial enterprises which is cervical for the formulation of better policy, self-policing better accompanied willful responsibility.

¹¹². Self policing violates the basic constitutional principle of self-incrimination. environmental law obligates the industrial enterprises to keep records of any information by which the criminal guilt of the persons is determined (see EIA supra note 47 Art 14).

Chapter Three

3. Available Legal Remedies to the Victims of Environmental Pollution

3.1 The Right to a Healthy Environment as a Human Right

The encyclopedia of environmental science defines the human environment as the aggregate of all conditions and influences affecting the behavior and development of humans as individuals and societies.¹¹³ “The effects of such conditions and influences result in a given environmental quality, either healthy or unhealthy” so what is a healthy environment”?

“A healthy environment is a standard required for the maintenance of the human quality of life.” It may be defined as an environment capable of satisfying the vital needs and wants of an individual or a society. The fulfillment of the condition of environmental quality is relative and may depend on the physical and psychological health or welfare of an individual or a society. It may also depend on the degree to which individuals or society’s environment satisfies his or its needs.¹¹⁴ “It the quality of environment required to satisfy its needs is not sufficient, society will feel that its quality of life is threatened and it will work towards averting the threat”

Healthy environment is one of the basic elements in the quality of life. A legal right to such an environment is emerging as a fundamental human right but “this right same time affected by a result of human activities undertaken in pursuit of certain objectives this problems mainly result from development activities aimed at improving the quality of life in one environment” the right to a healthy environment is a newly

¹¹³. OAS Minimum Conflict : Guidelines for Planning the use of American Humid Tropic Environments (Washington D.C.: OAS, 1987) p. 197

¹¹⁴. Ibid. p.7

emerging human right. The first legal instrument to mention the concept of the right to a healthy environment was the 1969 us National Environmental policy Act (NEPA). The Act states that a “healthful environment” is a necessary condition for the maintenance of environment quality and overall welfare of man.¹¹⁵

This could be taken as the recognition of the right to a healthy environment under the us Federal Laws.

The first intentional effort in this respect was the 1972 UN conference on the human environment. The stockhoin declaration made it clear that the Natural and man-made environmental are linked to the very existence of man. As one of its principles, the Stockholm declaration stated that.

“Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of quality that permits a life of dignity and well-being and he bears a for present and future generation.”¹¹⁶

Based on this fact, we can assume that her right to a healthy environment is recognized as a fundamental right by the international community.

The concept of this principle is found in Art 44(1) of the FDER constitution which recognizes that the right of “all persons to live in a clean and healthy environment”. The FDRE constitution recognized this right as one of the fundamental rights such as rights to life. Sustainable development, dignity, well being, freedom of expression of the Ethiopian citizens.

The right to live in a healthy environment as a basic human right is thus an inherent and inalienable right of the citizens. “Other

¹¹⁵. OAU, convention on the Ban of import or Hazardous wastes in to Africa and on the control of their transboundary movement within Africa (Bamako1991)Art 4(1)

¹¹⁶. Ibid, paragraphs 16/17

fundamental rights can not be realized without guaranteeing citizens to live in a healthy environmental”.

So, it is true that citizens have the right to live in a healthy environment, both government and citizens themselves need to contribute their best for the realization of creating comfortable environment.

3.2 Responsibilities of State and Individuals in Protecting the Environment from Pollution

The second principle of the Stockholm declaration similarly provides for the protection of the human environment. The natural resources of the earth, including the air, water, land, flora and fauna and especially representative samples of Natural ecosystems, must be safeguarded for the benefit of present and future generation through, careful planning on management, as appropriate.¹¹⁷

3.2.1 State Protection of the Environment

State have an obligation to prevent or protect the environment applying different laws and proclamations along with the Nation's (Ethiopia) focus and emphasis to wards creating convenient environment to the present and the on coming generation needs to be the point and the target to work on.

A number of post-stockholm National constitutions have provisions on the “obligation of states to protect the environment. In the interest of their citizens” and also “state has the obligation to promote and keep environmental security for present and future generation of their citizen.”

On the other hand, there are some modern constitutions like Ethiopia which provide for state obligations to protect the environment,

¹¹⁷. Article 4(3) of the Bamako convention

as a human right, and also state to ensure the protection of the environment in the interests of all citizens.

Several countries have amended their constitutions so as to include provisions on the protection of the environment, for example the Ethiopia constitution clearly obligates the state to prevent and control for environmental destruction affecting its citizens.¹¹⁸

In general those country where state obligation to protect the environment is set out in legislation subordination to the constitution, individual and groups would face a problem in invoking the right to a healthy environment as a fundamental right.

3.2.2 Individual Protection of the Environment

The right of individuals to a healthy environment is provided for in some constitutions which provided for state obligations to protect the environment. Environmental rights are usually set out in the same articles that oblige a state to take measures for the protection of the environment. Those right in most cases appear as combined right and duties is to be found, for instance, in the constitution of Ethiopia, as

Every one has the right to live in a healthy environment and also they oblige to protect it.¹¹⁹ Though citizens have constitutional right to live in a healthy and clean environment, they are also expected to accomplish their obligations. This means that citizens should give emphasis for their surroundings cleanness by removing the daily appearing wastes in a proper way. Because to benefit their constitutional right of living in a healthy environment, citizens ought to be working on their obligations.

¹¹⁸. Constitution of the Federal democratic republic of Ethiopia 1995 proc no. 1 Fed. Neg. Gaz. Year 1. No 1 Art (93)

¹¹⁹. Ibid

In general, “environmental right can not be realized without active participation by the public. Moreover the realization of these rights will also depend on a fair balancing of interest between different individuals.”

3.3 Technological and Legal Remedies Available to Victims of Environmental Pollution

Admitting that there is the environmental pollution problem the effect of which is so harsh on the residents around, such victims shall be granted remedies available to them at least to mitigate the harm they are suffering and at most to avoid that problem or prevent the problem before its eruption.

With this view at hand, the pollution control proclamation No 300/2002 incorporates some remedies, though not enough, based on which the victims of environmental pollution will be indemnified. These remedies can be seen in two main categories; technological and legal remedies. The next discussions will overview each category as provided in the proclamation.

3.3.1 Technological Remedies

To start with technology plays vital role to prevent and/or control and therefore to remedy different pollution effects caused to the environment and therefore, industries and other related organizations which discharge different harmful wastes to the environment and which for that reason need to comply with different environmental standards shall introduce sound technological packages to prevent or remedy all effects they cause.

Reading through out the pollution control proclamation only reveals a single place where a technological remedy is introduced. But, taking into account the vital role technologies play in preventing and/or controlled the environmental pollution problem and in remedying the

victims there of, adequate place would have been given to technological remedies.

Accordingly the proclamation, any person running activities the effect of which is to cause environmental pollution shall install a sound technology that avoids or reduces to the required minimum, the generation of waste.¹²⁰

The implication is that when sound technologies are installed the harm the victims suffer may be made minimized to the extent not harmful to them or the harm could be avoided and so that they will no more suffer that harm. This is how they are indemnified through technologies. (You have not said anything what a technological remedy is and how it can bring about solutions to pollution!)

3.3.2 Legal Remedies

The technological remedies mentioned above are not enough to properly indemnify victims in the proclamation. But such gap of the proclamation seems to have been filled with other legal remedies which the following discussion is to make an over view over it as civil remedies and criminal remedies.

3.3.2.1 Civil Remedies

The main action categories found for civil legal remedies before act of law include a tort action asking either for damage, injunction or both to halt the act of the offender from polluting the environment further and payment of compensation for an already suffered or inflicted injury.¹²¹

As he had been said above, one of the civil legal remedies is injunction. This is to stop the operation of the polluting undertaking so

¹²⁰. Environmental pollution control 1, 2002 No, 3000 Art 3(3)

¹²¹. Shyamdivian, Environmental Law in India, Cases, materials and status 2nd ed. Oxford University press 2001. p.88

as to protect the environment from pollution and therefore remedying the victims. Injunction may be undertaken through two ways permanent injunction or temporary injunction. Both seem to have been included in the proclamation.

Accordingly, under Art 3 there is a provision which reveals permanent injunction as expressed under the phrase “closure or relocation” which in the opinion of the writer inclines towards same effect to state as it is:

“When any activity poses a risk to human health or to the environment, the Authority or the relevant regional environmental agency shall take any necessary measure up to the closure or relocation of any enterprise in order to prevent harm.”¹²²

And as to temporary injunction which the stoppage is to be effective for limited period of time seems to reveal to that effect. Hence, an inspector up on suspicion of that any activity may cause damage to the environment, he shall order corrective measures which include immediate cessation of the activity.¹²³

Bearing the above in mind what is worth to mention here is that both permanent and temporary injunctions are to be ordered not by judicial or quasi-judicial organs rather by relevant environmental organs and inspectors respectively from this there arises a difficulty to say that they are civil remedies in its strict sense.

Another civil legal remedy seems to solve the above problem i.e., lack of decision of injunction by judicial organs. Accordingly, appeal being a remedy to victims of pollution and being recognized as of right to them, two chances are given to them to that effect one is appeal to head of the EPA or relevant regional environmental agency within ten days

¹²². Pollution control supra not 8 Art 3(5)

¹²³. Id., Art 8(3)

after the measure is taken by the inspector. Another is appeal to court of law from the decision of the first appeal.¹²⁴

Another most important civil legal remedy is laid down under the proclamation, as

“Any person shall have without the need to show any vested interest the right to lodge a complaint at the authority or the relevant regional environmental agency against any person allegedly causing actual or potential damage to the environment.”¹²⁵

The above right to standing further is allowed to go one step forward in a complain made to court of law. Hence, when the above organs for which complain is made fail to give a decision within 30 days or when the person who has lodged the complain is dissatisfied with the decision. He may institute a court case within sixty days from the date the decision was given or the deadline for decision has elapsed. Before we conclude the civil legal remedies of injunction.

Which type of injunction is beneficial to our economy, it is the temporary injunction remedy that orders installation of modern technologies advantageous and more suitable as civil judicial remedy to pollution effects around the industries. The permanent or injunction remedy by relocating or closing the industries would be fatalistic to the poor performing economy of ours.

The other civil remedy, compensation to be made for damages is another remedy that we can be awarded by a court of law. However, by this, what the pollution control proclamation deals about is not a tort action of compensation for injuries sustained by the victim residents. Even the claimants are not put there as if they are the primary complainant for the reason that they are the first victims of the problem.

Also, the compensation to be sought is put there in proclamation as an alternative remedy. In case reinstatement is impossible, and not as

¹²⁴. Id., Art 9(1,2)

¹²⁵. Id., Art 9(1,2)

primary remedy even though we have seen that it will not go to direct victims rather understanding of the Article reveals that the money in case made to be paid, go to public treasury.

According the proclamation, the convicted person to restore to the state in which the environment was prior to the infliction of the damage and when such restoration is not possible to pay appropriate compensation.¹²⁶

Also, still another problem that can be raised about is that the pollution control proclamation does not have a clear cut provision about the civil remedy, compensation to be made for damages by courts which is to be indemnified for victims themselves as for as the residents around the environmental polluted are concerned.

There fore, the pollution control proclamation has given recognition to the compensational remedy in a manner discussed above it is still difficult and hence impractical legal remedy for victims who suffer the effects of environmental pollution by environmental pollution causing parties.

3.3.2.2 Criminal Remedies

The other best legal remedy is criminal legal remedies. Under the pollution control proclamation No 300/2002. For an environmental offences committed by either a natural or juridical person criminal sanction is made put as one remedy to victims. Relatively, large section is granted for such remedies under the title “offences and penalties” which covers about six articles from the total of twenty- two provision of the proclamation. This shows that how much place is given to criminal remedies relatively to that civil and technological remedy.

There are three modes of punishment that the pollution control proclamation introduce; fines imprisonment or both together at a time up

¹²⁶ Id., Art 17

on conviction. However, courts most of the time prefer fines as a primary punishment and then comes imprisonment as alternative to it or as its collateral together as circumstances the law prescribes. This is different from the normal and usual criminal proceeding in which imprisonment comes first and then fines as an alternative to the former though sometimes both made applicable together at the same time.

Under the proclamation for example for a natural person who commits an environment offence and who is to be punished under this proclamation is liable on conviction to fine or an imprisonment or both. But a juridical person for same crime is to be punished for fine only.¹²⁷

But in the case of offences relating to wastes and other materials that are hazardous to the environment, both the natural person and the juridical person are liable on conviction to a fine though the amount may differ. But, the officer in charge of the juridical person. In addition to the fine it has been made to pay will be made liable to imprisonment or fine or both.¹²⁸

And also the offences relating to pollution such as environmental pollution, a natural person is liable on conviction to fine or alternatively to imprisonment and nothing else. But for juridical person the penalties are fine and cumulatively of imprisonment or fine or both of its officer in charges.¹²⁹

As mentioned in Art. 12(1) of the pollution control proclamation furtherance can be made to the Ethiopia criminal code. Accordingly, the revised criminal code of Ethiopia contains provisions which reveal the criminal liabilities that an environmental offender shall be burdened under Arts 519-521.

To concluded, penal sanctions imposed up on environmental criminal offenders for the reason that they cause environmental pollution

¹²⁷ Id., Art 12(11)

¹²⁸ Id., Art 15(2)

¹²⁹ Id., Art 16

the effect of which is so harsh on the general well being of humans deter subsequent offenders from committing similar acts.

3.4 Powers and Duties of Environmental Organs

The pollution control proclamation No 300/2002 imposes duties not only on parties that causes or are to causes pollution to the environment. There are also other parties up on which duties are imposed to prevent and if not possible to control pollution in general and also in the same proclamation different organs are entrusted with different powers.

We are talking about organs established for protection of our environment as of the case of proclamation No. 295/2005 a legislative framework enacted to establish the environmental protection Authority which Art (2(1) talks about. Also of Regional Environmental Agencies established by the law or the government of that state for regulation or protection of the environment as Art 2(4) of 7 proclamations 300/2002 reveal.

Accordingly responsibility is imposed upon all including governmental environmental organs to protect the environment, in general and to safeguard human health and well being, as well as to maintain the biota and the aesthetic value of Nature.¹³⁰

Now we discuss the duty of the Authority, in the first thing, the environmental organs are entrusted with the power to take an administrative or legal measure against a person who unlawfully releases any pollutant to the environment.¹³¹ Such administrative or legal measures are to be determined ether by law or by the environmental organs themselves the motive of which is to control pollution. Hence, Art 3 of the proclamation provides strict management mechanisms.

¹³⁰ Id., preamble paragraph 2

^m Id., Art 3(2)

Secondly the environmental organs can pass decision to the effect that persons engaged in activities that pollute the environment shall install a sound technology that avoids or reduces the problem. Also the organs can pass such decision to the effect that such persons shall apply methods for the recycling of waste.¹³²

Therefore, the above should be a duty for parties causing environment pollution upon the power to be exercised by the concerned environmental organ.

Thirdly, in cases there happens an activity the risk of which threatens human health or the environment the respective environmental organs shall take any necessary measure which even can be extended up to the closure or relocation of any enterprise in order to prevent harm on human health as well as the land being as a single in gradient of the environment.¹³³

The fourth one relates to the polluter pays principle a well known environmental law principle within it a person who pollutes the environment is required either to clean up or to pay cost of cleaning up. Here, at this point the concerned environmental organ is empowered to determine the time and manner by which such parties discharge their duties.¹³⁴

Again, as have been discussed in the previous subsection cumulative reading of Arts, 4(1), 4(2) and 4(3) reveals that there must be a permit issued for management of hazardous waste. Chemical and radioactive substances the question here is how is empowered to issue such permit and as per these sub articles. The EPA or Regional Environmental agencies are empowered to issue such permits.

Also, as a duty cities environmental authority can be imposed of as such in relation to management of municipal waste. Accordingly, all

¹³². Id., Art 3(3)

¹³³. Id., Art 3(5)

¹³⁴. Id., Art 3(4)

urban administrations shall ensure the collection transportation and as appropriate, the recycling, treatment or safe disposal of municipal waste through the institution of an integrated municipal waste management system¹³⁵ pollution control proclamation specifies activities to be undertaken for the proper management of municipal waste. Accordingly, all urban administrations have the obligation to devise mechanisms to ensure the collection, transportation, recycling, treatment and disposal of municipal waste, and to make available the necessary institutions along with implementation procedures and strategies in their development plants.

Further, as a distinctive duty but in collaboration with the relevant regional environmental agency EPA shall monitor and evaluate the adequacy of municipal waste management systems and ensures the effectiveness of their implementation as per Art 5(2) of the proclamation.

Another duty of EPA is the duty to monitor the situation with regard to the availability of waste disposal facilities and take the necessary measures to ensure that their availability is satisfactory as Art. 5(4) of the proclamation clearly put. Such is done by EPA in collaboration with relevant regional environmental agencies and any other competent agencies like NGOS. However, the law is not clear as to what kind of measure EPA has to take because it does not expressly laid down what measures are to be taken by EPA to that effect. Based on this the standards includes standards for discharge of effluents air quality type and amount of substances that can be applied to the soil or be disposed of on or in it noise and waste management.¹³⁶

Other factors that must be taken into account by EPA to formulate environmental standards are: by doing research and see outcomes of the research. They by analyzing the result of the research by revising other

¹³⁵. Id., Art 5(1)

¹³⁶. Id., Art 6(1)

countries' experience and also by taking in to account factories' economy technology, and manpower etc.¹³⁷

At any rate, EPA can prescribe different environmental standards which may be different from place to place that EPA into account as it thinks fit so as to protect the environment from pollution and to rehabilitate the already polluted environment.¹³⁸

Accordingly Art 6(4) of the proclamation based on their specific situations, regional states may adopt environmental standards that are not less stringent than the federal ones and regional states are given a power like the federal one. However, the power of the former is not without any limitation not adopt any standard it likes rather it has not to be less stringent than of the federal environmental standard.

Therefore, its power is not an absolute power. To proceed as such, we get another power entrusted to EPA in Art 6(5) of the proclamation. This is the power to a waive the duty to follow those environmental standards imposed on any person as per Art 3(1) of the proclamation such is by the reason that the waiver of such duties is in good faith in that public safety and order will not be disturbed. It is so obvious that those environmental standards are to be complied there at least for public health and undisturbed well being of them and at most to protect the environment in which the public act in from any danger. However, there are times the application of which disturbs the normal transaction of the above. And, at this juncture we have to seek stopple for application of those environmental standards. This is justifiable reason for whose application EPA is empowered.

Among many powers entrusted to environmental organs as in the proclamation and as discussed, above according to Art 7 EPA or relevant regional environmental agencies as the case may be do have the power to assign environmental inspectors. These inspectors are just like a police

¹³⁷. Interview with Wondessen Sentayehu , EPA legal dept. Hed. on

¹³⁸. Supra note 8, Arty 6(3)

to environmental standards and environmental laws as well as environmental principles which are adopted for the better protection of the environment when discharging this they have to act without any negligence. On related matters one of the many things which the inspectors have to fulfill especially when making contact with polluting parties is that they shall have an identity card with them when moving from place to place to discharge their duties they are entrusted as per Art 8(1) of the proclamation. However, the point to be raised here is that as in Art 8(4) these identity cards of inspectors have to be issued by EPA or by relevant regional environmental agency bearing its official seal and show it when requested.

Another is that as can be understood from reading through the whole of Art. 8 and other relevant provisions of the proclamation, the inspectors are given big power one of which is to pass any order or measure up on parties they think they have to do as such for their act which is environmental unfriendly. However those parties upon which measures have been taken do have a chance to make appeal to higher organs. Here comes that the EPA or other relevant regional environmental agency is empowered to hear such appeal that has to be done within ten days from the day measures are taken by inspectors.¹³⁹

Also, the pollution control proclamation introduced one known and very useful environmental law principle the subsidy principle under Art 10 with a view to prevent if not possible to control environmental pollution. Accordingly, importation of new equipment that is destined to control pollution shall be exempted from payment of custom duty. Here, EPA is entrusted with a vital power in that to determine as to whether equipment is destined to control pollution or not. EPA has an exclusive power. This is power of verification to the effect mentioned above.

¹³⁹. Id., Art 9(1)

To add one more EPA has the power to ask and get information from any person who found him self in any activity pertaining to any of the provisions of the pollution control proclamation or any other relevant law.¹⁴⁰ This is just more than power. It is a right for EPA to have access to any information it seeks for the better discharging of its tasks.

3.5 Duties and Responsibilities of Polluters

The aim of the pollution control proclamation which is regulating or controlling of environmental pollution, is concerned it is obvious for such laws to impose duties and provide responsibilities upon those who pollutes the environment or who do have the potential to do that.

At the point the preamble of the proclamation is a better to start. Accordingly, the second paragraph revealed that the protection of the environment in general is the duty and responsibility of all citizens the country including the government. Since they are actors within the environment with acts or potentials to such acts pollution the environment in general.

Many duties and responsibilities are incorporated in the proclamations which are imposed on those parties causing environmental pollution, the first is the duty not to cause the pollution, accordingly, any person shall not pollute the environmental or cause also, they shall not violate relevant environmental standard made by Environmental Protection Authority.¹⁴¹ On the same way Article 6 are indicated that, “every person is made responsible to do that.

Secondly any person engaged in any pollution causing Activity is duty bound to install technology which is must be sound. Such is done up on the order made by the EPA on the relevant regional environmental

¹⁴⁰. Id., Art 19

¹⁴¹. Id., Art 3

agencies with a view to prevent and if not to control the production of wastes that pollute the environment.¹⁴²

Thirdly, there is a duty to recycle. According, any person who undertakes activities that generate wastes which are likely to pollute the environment are required to apply methods for the recycling of wastes at any time and stage possible.¹⁴³

Fourthly, any person causing any pollution shall be a required to clean up the polluted environment.¹⁴⁴ The task of cleaning up is made by its workers employed to that effect and the fifth duty is under Article 3 of the proclamation. It is a duty to pay the cost of cleaning up the polluted environment. This duty is put there as an alternative to the above duty the duty to clean up the polluted environment.¹⁴⁵ Thus, in case persons who polluted the environment can not clean it. By themselves or by sanitary workers they hire. They are required to pay the cost necessary to do that so that respective environment organ will expend it to same effect.

Both the above last two duties are to be done in a manner and with in a time which the EPA or the relevant regional environmental agency is to determine. However, the two duties can not be said as it they are of conditional the remain duty at any time. The only thing the concerned environmental organs do is just to determine the manner and the time of discharging that duty.

Cumulative reading to Art4(1),(4)3) and 4(4) clearly reveals that there is a need to get permit for nay person to undertaking management of hazardous waste chemical and radio active substances which do have an extreme potential to pollute the environment.

Thus as a duty, such persons shall get issuance of permit from EPA or the relevant regional environmental agency. As the case may be

¹⁴² Id., Art [3]

¹⁴³ Ibid

¹⁴⁴ Id., Art 3(4)

¹⁴⁵ Ibid

for generation, keeping storage, transportation, treatment or disposal of any hazardous.¹⁴⁶ Importation, mining processing, keeping distribution storage, transportation or use of radio active substances¹⁴⁷ and importation, preparation, keeping distribution, storage, transportation or use of a chemical categorized as hazardous or of restricted use.¹⁴⁸

Another duty incorporates article 4 this is a duty of care any person engaged in the collection recycling, transportation, treatment or disposal of any hazardous waste, which can pollute the environment or to human health.¹⁴⁹

In addition Art 19 imposes a duty upon persons mentioned above. Accordingly, any person engaged in all activity pertaining to any of the provision of this proclamation or any other related law shall provide any other related law shall provide any information on his activity as required by the Authority or the relevant regional environmental agency. Hence in case different empowered environment organs are in need of information about any environmental activities relation to that person required to provide information it is really a duty to do so as per Art 19(1) of the pollution control proclamation.

Legal Gaps and Implementation Problem

Having a law with no gap in it is almost unthinkable. Legal gaps are commonly exist even not implemented by the legislator in the real life. It is also clear that there is an obvious gap in the accomplishment of the environmental pollution control proclamation No 300.2002.

Since the pollution control proclamation shows a general approach to all pollution sources. It has become difficult to have a deep assessment of most known pollution categories. As a result treating each kind of pollution in detail becomes not easy.

¹⁴⁶. Id., Art 4(1)

¹⁴⁷. Id., Art 4(3)

¹⁴⁸. Id., Art 4(4)

¹⁴⁹. Id., Art 4(2)

Even though the existing legal gaps are clear and undeniable there proclamations play a great role in protecting environmental pollutions where a number of pollutant factors are emerging from time to time.

As the writer tries to point out the limits and gaps of the environmental pollution control proclamation No 300/2002.

The first drawback is, the Addis Ababa Environment protection Authority didn't formulate the amount of emission standards in this proclamation and with out this also it is very difficult to do any thing about pollutants that their untreated pollution to enter into the environment.

This means such pollutants can not be judged as environmental pollution factors with the absences of clearly defined standards and at the same time the law seems impractical.

There fore, the standard type mention above is one of gaps clearly observed in the proclamation and which make it weak in practice.

There are also other implementation problems in relation to pollution control proclamation like not appointing the environmental inspectors headed by the general of environmental protection authority and the reason for this is the absence of emission standard. Being unable to bring up such environmental standards and not appointing inspectors clearly affects the implementation of the law in the metropoly.

Another problem to be mentioned as a limit for the implementation of the proclamation is thought to be the delay in issuing the regulation, this by itself creates a great obstacle in enforcing the law since the proclamation is a general one which loosest more detailed case that can be fulfilled by the regulation and without which controlling the pollution will be impossible.

On the other hand, the environmental protection authority is not in a position to take administrative measures on the individual violating the law. For instance, the record the writer observes tells that Article, 3(1) is not being applied fully. That is to say most administrative

measures are only on few pollutants on which complain are made. But the fact shows that the main sources for Addis to be polluted are individual house holds and other related organs on which for the administration could not take any legal measures.

The last but not the least point here is that the city administration doesn't give due attention for integrated municipal waste management system through which the collection transportation, recycling and treatment of wastes can be ensured as it is stated in articles 5(1) of the proclamation. As a result of this and inefficient municipal waste management system, municipal wastes are disposed harmful for the city dwellers.

Generally it is not ambiguous that the care reason for the pollution in the city is the least focus given for the enforcement or application of the environmental pollution control legislation.

To eventually come to the point, the writer has tried to display that to have an effective environmental pollution control in the city; the relevant policies should be implemented in harmony with legal and institutional frame works. It is also underlined that proclamation 300/2002 is targeted for the fulfillment of the objectives of controlling the problem of pollution.

Though environmental protection authority has main role in implementing the proclamation, the local administrative organs are also expected to accomplish what is expected from them. This all will bring the expected out come to be in hand, that means minimizing the pollution.

Conclusions and Recommendations

The day to day activity of the society and the industries cause the city's wastes to occur frequently. Though the society's daily activity has a great role in disturbing the environment, the industries also have their own impact on environment pollution.

The pollutions also highly affect the health of the dwellers in general as well as the countries economy in particular.

In order to minimize if possible to radically change this problem. The government of the nation has brought up environmental control proclamation like 300/2002 and others.

However, as it is already mentioned in this study, the environment control legislations didn't get good focus and as a result weak efficiency is observed in this area particularly in towns and cities like Addis.

Since the concerned administrative organs didn't give the necessary attention to such environmental control proclamations, the less implementation of the legal regime is occurred.

Further more environmental standards are expected to be formulated by the concerned body of the government like environmental protection authority. Its didn't formulate practicable environmental standards and as a consequence and as it is proved by this study no ambient environmental standards which help to measure the amount of pollutants release into the environment. Because of the above reason implementing and properly applying the control proclamation has become difficult.

Such gaps like not having ambient standards and absence of regulation led back the government to start dealing with the problem and the findings as well as environmental laws still didn't put into practice yet, for instance the residents constitution and other legal materials because of the prevalent environmental problems in the city.

Thus, it can be concluded that as the environmental control proclamations and other related laws display legal gaps, the implementation of pollution controls has become too complex and difficult to manage.

In general recommend the points below which I think indicate the solution for the problem vastly discussed in the study.

- ◆◆◆ The concerned body needs to take time and seriously think of how to fill the gaps occurred in the pollution control proclamations and related laws.
- ◆◆◆ Coordinated environmental organs and different agencies need to newly rearranged and organized to assist EPA and other regional sections for regulation of environmental pollution.
- ◆ The city administration should take measures and responsibility in improving or creating the awareness of the society about how to protect their environment from pollution.
- ◆◆◆ Altering the places of the early established plants (industries) for the better environment of the residents around it.
- ◆◆◆ For better protection of the environment, NGOS educational institutions, mass media and the society at large must be given chances to take action in controlling pollution stressing the formulated strategies to be prepared by the concerned body of the government.
- ◆ It is better to specially focus on creating awareness and providing training about controlling wastes to women in the society as they are responsible in the Ethiopian society in cleanness of the family housing units and immediate surroundings.
- ◆◆◆ The EPA should try to enlegate systems of controlling wastes to the kebel level so that the waste management mechanism will be effective and fruitful.
- ◆ Setting up functional municipal structures at grassroots level both to work with the communities and traditional institutions

like “edir” in educating the public on controlling generation of solid waster and its disposal as well as enforcing regulations indicated by the regional government.

- ◆◆◆ The city Administration need to pave the way to encouraging the concerned institutions, professionals and others to undertake systematic research on waste and waste management cases in Addis and also the researches done on this issue previously in different institutions need to be brought out and applied for better control of the environmental pollution.

The recommendation points forwarded above if implemented properly, will contribute the best in controlling wastes and enhancing environmental sanitation in the country in general and the city of Addis in particular.

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